**Abstract ID** : 552

**Title** : Dwarf Sperm Whale (Kogia sima) Habitats in the Philippines

**Category** : Ecology

**Student** : Not Applicable

**Preferred Format** : Either Oral or Poster Presentation

**Abstract** : Tañon Strait in the Philippines has been observed to have a relatively high density of the dwarf sperm whale, Kogia sima. All recorded sightings were plotted to show the specific area of greatest occurrences, and results of a systematic line-transect survey were used to estimate population size (using the program DISTANCE) and compare relative densities between the Strait and the neighboring marine habitat in the eastern Sulu Sea. Correlations with environmental features such as Beaufort sea state, depth, and surface temperature were examined using a multiple regression analysis (using S-PLUS).

Although %CV was fairly high, there is an indication that there are more dwarf sperm whales in Tañon Strait than in the eastern Sulu Sea, despite it being five times smaller in area. Relative density in Tañon Strait was about 0.15 whale per $km^2$ and population size was 640 (CV 74.55%); in the Sulu Sea, the values were 0.01 whale per $km^2$ and 194 whales (CV 78.76%), respectively. Corrected encounter rates in Tañon Strait were more than twice as high as those observed in the western and eastern tropical Pacific Ocean and four times higher than in the Gulf of Mexico.

No correlation was observed between sighting rates and water depth (occurrence range: 117m-3744m); the greatest concentrations were in waters 200-399m deep in both areas. A correlation was found between sighting rate and surface temperature (range during the surveys: 25-31°C). Proposed explanations for the high density in Tañon Strait are: a.) terraced and complex bottom topography and warm bottom temperatures which are suitable habitats for this whale's prey, i.e. squids, octopuses, benthic fishes and crustaceans, and b) relatively fewer deep-diving cetacean competitors, such as the spinner dolphin (Stenella longirostris) and pilot whale (Globicephala macrorhynchus), and the absence of Fraser's dolphin (Lagenodelphis hosei).